

The Auk

A Quarterly Journal of Ornithology

EDITOR

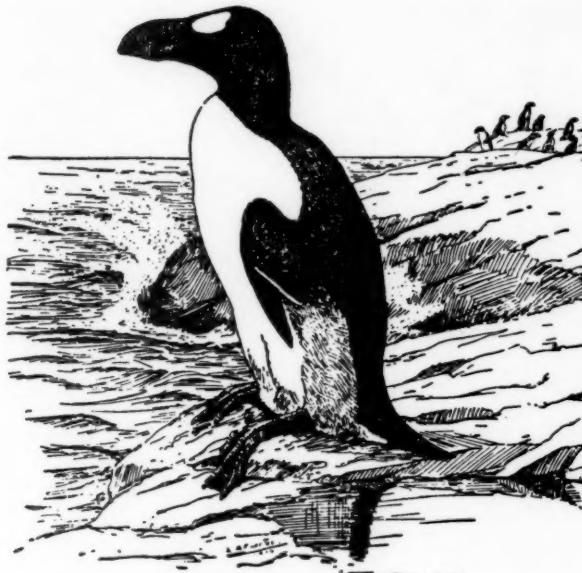
ALAN H. BRUSH

COPY EDITOR

K. ELIZABETH K. PACALA

ASSOCIATE EDITORS

FRED E. LOHRER, M. ROSS LEIN



VOLUME 103

PUBLISHED BY

THE AMERICAN ORNITHOLOGISTS' UNION

1986

CONTENTS OF VOLUME 103

NUMBER 1

	1
	8
	14
	23
	32
	42
	52
	61
	70
	79
	86
	100
	117
	125
	135
	141
	152
	160
	169
	181
	189
	196
	204
	207
	208
	209
	210
	213
	214
	216
	219
	221
	225
	227
	230

THERMAL CONSEQUENCES OF ROOST-SITE SELECTION: THE RELATIVE IMPORTANCE OF THREE MODES OF HEAT CONSERVATION. *Glenn E. Walsberg*

CLUTCH SIZE AND FLEDGING SUCCESS IN THE TURQUOISE-BROWED MOTMOT. *Peter E. Scott and Robert F. Martin*

MOONLIGHT AVOIDANCE BEHAVIOR IN LEACH'S STORM-PETRELS AS A DEFENSE AGAINST SLATY-BACKED GULLS. *Yutaka Watanuki*

RELATIONSHIPS AMONG TERRITORY SIZE, HABITAT, SONG, AND NESTING SUCCESS OF NORTHERN CARDINALS. *Richard N. Conner, Mary E. Anderson, and James G. Dickson*

FAMILY ASSOCIATIONS IN COMMUNALLY ROOSTING BLACK VULTURES. *Patricia Parker Rabenold*

COMPARATIVE REPRODUCTIVE SUCCESS OF YELLOW-SHAFTED, RED-SHAFTED, AND HYBRID FLICKERS ACROSS A HYBRID ZONE. *William S. Moore and Walter D. Koenig*

BROOD PARASITISM IN A HOST GENERALIST, THE SHINY COWBIRD: I. THE QUALITY OF DIFFERENT SPECIES AS HOSTS. *Paul Mason*

BROOD PARASITISM IN A HOST GENERALIST, THE SHINY COWBIRD: II. HOST SELECTION. *Paul Mason*

REVERSED SEXUAL SIZE DIMORPHISM: EFFECT ON RESOURCE DEFENSE AND FORAGING BEHAVIORS OF NONBREEDING NORTHERN HARRIERS. *Ethan J. Temeles*

DISPERSAL IN WHITE-CROWNED SPARROWS: A COMPUTER SIMULATION OF THE EFFECT OF STUDY-AREA SIZE ON ESTIMATES OF LOCAL RECRUITMENT. *Michael A. Cunningham*

NESTING SUCCESS AND MORTALITY OF THE BOAT-TAILED GRACKLE. *G. Thomas Bancroft*

TROPHIC ORGANIZATION OF UNDERSTORY BIRDS IN A MALAYSIAN DIPTEROCARP FOREST. *Marina Wong*

HOURLY VARIATION IN MORNING POINT COUNTS OF BIRDS. *Jared Verner and Lyman V. Ritter*

GROWTH RATES OF CRANES REARED IN CAPTIVITY. *Robert E. Ricklefs, Donald F. Bruning, and George W. Archibald*

WHY ARE NESTING MARSH WRENS AND YELLOW-HEADED BLACKBIRDS SPATIALLY SEGREGATED? *Marty L. Leonard and Jaroslav Picman*

SEABIRD PATCHINESS IN TROPICAL OCEANIC WATERS: THE INFLUENCE OF SARGASSUM "REEFS." *J. Christopher Haney*

PARENTAL INVESTMENT BY THE NORTHERN MOCKINGBIRD: MALE AND FEMALE ROLES IN FEEDING NESTLINGS. *Randall Breitwisch, Peter C. Merritt, and George H. Whitesides*

THERMAL INSULATION OF THE DOWN AND FEATHERS OF PYGOSCELID PENGUIN CHICKS AND THE UNIQUE PROPERTIES OF PENGUIN FEATHERS. *Jan R. E. Taylor*

FLIGHT COST OF A SMALL PASSERINE MEASURED USING DOUBLY LABELED WATER: IMPLICATIONS FOR ENERGETICS STUDIES. *Paul Tatner and David M. Bryant*

CHANGES IN BODY WEIGHT AND BODY COMPOSITION OF BREEDING RING-NECKED DUCKS (*Aythya collaris*). *William L. Hohman*

MALE COURTSHIP VOCALIZATIONS AS CUES FOR MATE CHOICE IN THE SATIN BOWERBIRD (*Ptilonorhynchus violaceus*). *Christopher A. Loffredo and Gerald Borgia*

MULTIPLE BROODING AS A REPRODUCTIVE STRATEGY: TIME-CONSERVING ADAPTATIONS IN MOURNING DOVES. *David Westmoreland, Louis B. Best, and David E. Blockstein*

IN MEMORIAM: RODOLPHE MEYER DE SCHAUENSEE. *S. Dillon Ripley*

IN MEMORIAM: ANDREW KEVE, 1909-1984. *Miklos D. F. Udvardy*

IN MEMORIAM: EDGAR BRYAN KINCAID, JR., 1921-1985. *Charles Hartshorne*

IN MEMORIAM: CHARLES RUSSELL MASON, 1895-1983. *Herbert W. Kale II*

SHORT COMMUNICATIONS

Song Sparrows Grow and Shrink with Age. *James N. M. Smith, Peter Arcese, and Dolph Schlüter*

Feeding of Brown-headed Cowbird (*Molothrus ater*) Fledglings by More Than One "Host" Species. *Nedra K. Klein and Kenneth V. Rosenberg*

The Influence of Human Disturbance on Tufted Puffin Breeding Success. *D. J. Pierce and T. R. Simons*

Was Bachman's Warbler a Bamboo Specialist? *J. V. Remsen, Jr.*

Consumption of Largemouth Bass Eggs by Redhead Ducks at Ruby Lake, Nevada. *J. H. Noyes*

Relationships of Pelagic Seabirds with the Southern Ocean Environment Assessed by Correspondence Analysis. *R. W. Abrams and L. G. Underhill*

An Alternative Method for the Analysis of Emlen Funnel Data. *Jeffrey D. Cherry and Kenneth P. Able*

Notes on the Plumages of the Paramo Seedeater (*Catamenia homochroa*). *Robert W. Dickerman*

Breeding-site Selection and Colony Formation in Double-crested and Pelagic Cormorants. *Douglas Siegel-Causey and George L. Hunt, Jr.*

INTRACLUTCH EGG-SIZE VARIATION IN BIRDS: PHYSIOLOGICAL RESPONSES OF INDIVIDUALS TO FLUCTUATIONS IN ENVIRONMENTAL CONDITIONS. <i>Antero Järvinen and Juha Ylimäki</i>	235
NUTRIENT RESERVES OF PREMIGRATORY BRANT DURING SPRING. <i>Larry D. Vangilder, Loren M. Smith, and Richard K. Lawrence</i>	237
DELAYED NOCTURNAL OCCUPATION OF BREEDING COLONIES BY LEAST TERN (<i>Sterna antillarum</i>). <i>Jonathan L. Atwood</i>	242
DEVELOPMENT OF FORMATION FLYING IN JUVENILE WHITE IBISES (<i>Eudocimus albus</i>). <i>Daniel R. Petit and Keith L. Bildstein</i>	244
COMMENTARY	
LONG LAYING INTERVALS. <i>S. Merchant</i>	247
EDITORIAL	
PEER REVIEW. <i>Alan H. Brush</i>	248
BOOK REVIEWS. Edited by William E. Southern	
100 YEARS AGO IN THE AUK	249
159, 203	
ERRATA	180
NOTES AND NEWS	13, 22, 51, 78, 85

NUMBER 2

VIGILANCE PATTERNS OF BALD EAGLES FEEDING IN GROUPS. <i>Susan K. Knight and Richard L. Knight</i>	263
DIFFERENCES IN SUSCEPTIBILITY TO PREDATION DURING NESTING BETWEEN PIED AND BLACK STILTS (<i>HIMANTOPUS</i> spp.). <i>Raymond J. Pierce</i>	273
A PREVIOUSLY UNKNOWN PLUMAGE OF FIRST-YEAR INDIGO BUNTINGS AND THEORIES OF DELAYED PLUMAGE MATURATION. <i>Sievert Rohwer</i>	281
MOLT OF FEMALE LESSER SCAUP IMMEDIATELY FOLLOWING BREEDING. <i>Jane E. Austin and Leigh H. Fredrickson</i>	293
BIOENERGETICS OF EGG PRODUCTION BY FEMALE HOUSE SPARROWS. <i>David G. Krementz and C. Davison Ankney</i>	299
REPRODUCTIVE PERFORMANCE OF SEABIRDS: THE IMPORTANCE OF POPULATION AND COLONY SIZE. <i>George L. Hunt, Jr., Zoe A. Eppley, and David C. Schneider</i>	306
WHY DOES INTENSITY OF AVIAN NEST DEFENSE INCREASE DURING THE NESTING CYCLE? <i>Richard L. Knight and Stanley A. Temple</i>	318
INFLUENCE OF RESOURCE ABUNDANCE ON USE OF TREE-FALL GAPS BY BIRDS IN AN ISOLATED WOODLOT. <i>John G. Blake and William G. Hoppes</i>	328
GENERIC STATUS OF EULER'S FLYCATCHER: A MORPHOLOGICAL AND BIOCHEMICAL STUDY. <i>Wesley E. Lanyon and Scott M. Lanyon</i>	341
AN ANALYSIS OF VOCAL COMMUNICATION IN YOUNG BROWN NODDIES (<i>ANOUS STOLIDUS</i>). <i>Diane E. Riska</i>	351
AN ANALYSIS OF VOCAL COMMUNICATION IN THE ADULT BROWN NODDY (<i>ANOUS STOLIDUS</i>). <i>Diane E. Riska</i>	359
THE INFLUENCE OF MOONLIGHT ON THE BEHAVIOR OF GOATSUCKERS (<i>CAPRIMULGIDAE</i>). <i>Alexander M. Mills</i>	370
SURVIVAL ANALYSIS OF EGGS AND CHICKS OF ADÉLIE PENGUINS (<i>PYGOSCELIS ADELIAE</i>). <i>Lloyd S. Davis and Frances T. McCaffrey</i>	379
SOURCES OF VARIATION IN GROWTH OF TREE SWALLOWS. <i>Terry E. Quinney, David J. T. Hussell, and C. Davison Ankney</i>	389
PROXIMATE AND ULTIMATE CAUSATION OF EGG SIZE AND THE "THIRD-CHICK DISADVANTAGE" IN THE WESTERN GULL. <i>Raymond Pierotti and Cheryl A. Bellrose</i>	401
OLD AGE AND BREEDING BEHAVIOR IN A TROPICAL PASSERINE BIRD <i>PLOCEUS CUCULLATUS</i> UNDER CONTROLLED CONDITIONS. <i>N. E. Collias, E. C. Collias, C. H. Jacobs, C. R. Cox, and F. A. McAlary</i>	408
IN MEMORIAM: W. RUDYERD BOUTON. <i>Melvin A. Traylor, Jr.</i>	420
SHORT COMMUNICATIONS	
SEXUAL DIFFERENCES IN THE SPATIAL DISTRIBUTION OF FORAGING IN WHITE-THROATED SPARROWS (<i>ZONOTRICHIA ALBICOLLIS</i>). <i>Fred E. Wasserman</i>	421
PARENTAL BEHAVIOR OF A BIGAMOUS MALE NORTHERN MOCKINGBIRD. <i>Randall Breitwisch, Ronald C. Ritter, and Julia Zaines</i>	424
STOMACH PUMPING: IS KILLING SEABIRDS NECESSARY? <i>Peter G. Ryan and Susan Jackson</i>	427
A SAFE AND ACCURATE METHOD FOR FORCE-FEEDING SMALL GRANIVOROUS BIRDS. <i>Mary E. Murphy and James R. King</i>	429
PHILYDOR HYLOBIUS WETMORE AND PHELPS IS A SYNONYM OF AUTOMOLUS RORAIMAE HELLMAYR. <i>Robert W. Dickerman, George F. Barrowclough, Peter F. Cannell, William H. Phelps, Jr., and David E. Willard</i>	431
EVOLUTION OF HOLE-NESTING IN BIRDS: ON BALANCING SELECTION PRESSURES. <i>Sven G. Nilsson</i>	432
FREQUENCY OF ARTHROPODS IN STOMACHS OF TROPICAL HUMMINGBIRDS. <i>J. V. Remsen, Jr., F. Gary Stiles, and Peter E. Scott</i>	436
COMMENTARY	
POLYGAMY IN TREE SWALLOWS: RESPONSE TO R. E. SIMMONS. <i>Terry E. Quinney</i>	442
BOOK REVIEWS. Edited by William E. Southern	
444	

BREWSTER AND COUES AWARDS	450
100 YEARS AGO IN THE AUK	305
NOTES AND NEWS	292, 298

NUMBER 3

FOOD PASSAGE AND INTESTINAL NUTRIENT ABSORPTION IN HUMMINGBIRDS. <i>William H. Karasov, Duong Phan, Jared M. Diamond, and F. Lynn Carpenter</i>	453
BODY SIZE AND CONDITION, TIMING OF BREEDING, AND ASPECTS OF EGG PRODUCTION IN EASTERN KINGBIRDS. <i>Michael T. Murphy</i>	465
EFFECTS OF BODY WEIGHT AND AGE ON THE TIME OF PAIRING OF AMERICAN BLACK DUCKS. <i>Gary R. Hepp</i>	477
METABOLISM, GROWTH, AND ACTIVITY IN ADÉLIE AND EMPEROR PENGUIN EMBRYOS. <i>Theresa L. Bucher, George A. Bartholomew, W. Z. Trivelpiece, and N. J. Volkman</i>	485
PREDATION AS A SELECTIVE FORCE ON FORAGING HERONS: EFFECTS OF PLUMAGE COLOR AND FLOCKING. <i>Gloria S. Caldwell</i>	494
THE RELATIONSHIP BETWEEN BODY MASS AND SURVIVAL OF WINTERING CANVASBACKS. <i>G. M. Haramis, J. D. Nichols, K. H. Pollock, and J. E. Hines</i>	506
SEARCH TACTICS OF INSECTIVOROUS BIRDS FORAGING IN AN AUSTRALIAN EUCALYPT FOREST. <i>Richard T. Holmes and Harry F. Recher</i>	515
FISH CROW PREDATION ON EGGS OF THE WHITE IBIS AT BATTERY ISLAND, NORTH CAROLINA. <i>Mark A. Shields and James F. Parnell</i>	531
THE SOCIAL SYSTEM OF THE TEXAS GREEN JAY. <i>Douglas C. Gayou</i>	540
DIFFERENTIAL TIMING OF SPRING MIGRATION IN WOOD WARBLERS (PARULINAE). <i>Charles M. Francis and Fred Cooke</i>	548
ABUNDANCE AND HABITAT SELECTION OF TWO AMERICAN KESTREL SUBSPECIES IN NORTH-CENTRAL FLORIDA. <i>Petra Bohall-Wood and Michael W. Collopy</i>	557
BEHAVIORAL AND ECOLOGICAL CORRELATES OF INTERFERENCE COMPETITION AMONG SOME HAWAIIAN DREPANIDINAE. <i>John H. Carothers</i>	564
SEABIRD GEOGRAPHIC VARIATION: SIMILARITY AMONG POPULATIONS OF LEACH'S STORM-PETREL. <i>Dennis M. Power and David G. Ainley</i>	575
OLFACtORY SENSITIVITY OF THE TURKEY VULTURE (CATHARTES AURA) TO THREE CARRION-ASSOCIATED ODORANTS. <i>Steven A. Smith and Richard A. Pasek</i>	586
A FIXED-RADIUS POINT COUNT METHOD FOR NONBREEDING AND BREEDING SEASON USE. <i>Richard L. Hutto, Sandra M. Pletschet, and Paul Hendricks</i>	593
IN MEMORIAM: JEAN (THEODORE) DELACOUR. <i>Ernst Mayr</i>	603
IN MEMORIAM: ROBERT CUNNINGHAM MILLER. <i>Robert T. Orr</i>	606
SHORT COMMUNICATIONS	
Is Long-distance Migration Possible for Soaring Hawks Using Only Stored Fat? <i>Neal G. Smith, David L. Goldstein, and George A. Bartholomew</i>	607
The First Documented Case of Polyandry for Wilson's Phalarope (<i>Phalaropus tricolor</i>). <i>Mark A. Colwell</i>	611
Omorphology: A New Method. <i>Raivo Mänd, Agu Nigul, and Enok Sein</i>	613
Differential Digestion Rates of Prey by White-chinned Petrels (<i>Procellaria aequinoctialis</i>). <i>Sue Jackson and Peter G. Ryan</i>	617
Infanticide by a Male Parent and by a New Female Mate in Colonial Egrets. <i>Masahiro Fujioka</i>	619
An Assessment of Ground-nest Depredation in a Catastrophically Disturbed Region, Mount St. Helens, Washington. <i>Douglas C. Andersen and James A. MacMahon</i>	622
Brood Parasitism of Eastern Kingbirds by Brown-headed Cowbirds. <i>Michael T. Murphy</i>	626
A Taxonomic Reevaluation of the Plain Pigeon (<i>Columba inornata</i>). <i>Richard C. Banks</i>	629
Recovery of the Endangered Mauritius Kestrel from an Extreme Population Bottleneck. <i>Stanley A. Temple</i>	632
Airspeed and Heading of Autumnal Migrants over Hawaii. <i>Timothy C. Williams, Janet M. Williams, and Phillip D. Kloeckner</i>	634
<i>Calcarus lapponicus coloratus</i> in the Aleutian Islands, Alaska. <i>Daniel D. Gibson</i>	635
COMMENTARIES	
Does Food Limit Clutch Size in Prairie Ducks? <i>David C. Duncan</i>	637
Response to D. C. Duncan. <i>Frank C. Rohwer</i>	638
Design of Song Playback Experiments. <i>Donald E. Kroodsma</i>	640
BOOK REVIEWS. Edited by M. Ross Lein	643
100 YEARS AGO IN THE AUK	484
ERRATUM	539
NOTES AND NEWS	505, 530

NUMBER 4

MORPHOLOGICAL AND VOCAL VARIATION ACROSS A CONTACT ZONE BETWEEN THE CHICKADEES <i>PARUS ATRICAPILLUS</i> AND <i>P. CAROLINENSIS</i> . <i>Mark B. Robbins, Michael J. Braun, and Emily A. Tobey</i>	655
EXTENSIVE PROTEIN SIMILARITY OF THE HYBRIDIZING CHICKADEES <i>PARUS ATRICAPILLUS</i> AND <i>P. CAROLINENSIS</i> . <i>Michael J. Braun and Mark B. Robbins</i>	667
MITOCHONDRIAL DNA: A SOURCE OF GENETIC MARKERS FOR STUDIES OF SIMILAR PASSERINE BIRD SPECIES. <i>Andrew L. Mack, Frank B. Gill, Robert Colburn, and Christina Spolsky</i>	676
EGG FORMATION IN CASSIN'S AUKLET. <i>Lee B. Astheimer</i>	682
FEMALE CHOICE IN MIDDENDORFF'S GRASSHOPPER-WARBLER (<i>LOCUSTELLA OCHOTENSIS</i>). <i>Hisashi Nagata</i>	694
LOW GENIC VARIATION BETWEEN BLACK DUCKS AND MALLARDS. <i>C. Davison Ankney, Darrell G. Dennis, Lisa N. Wishard, and James E. Seeb</i>	701
THE DIET OF AMERICAN ROBINS: AN ANALYSIS OF U.S. BIOLOGICAL SURVEY RECORDS. <i>Nathaniel T. Wheelwright</i>	710
DAILY ACTIVITY PATTERNS OF SOUTH POLAR AND BROWN SKUAS NEAR PALMER STATION, ANTARCTICA. <i>Pamela J. Pietz</i>	726
A PHYLOGENETIC ANALYSIS OF RECENT ANSERIFORM GENERA USING MORPHOLOGICAL CHARACTERS. <i>Bradley C. Livezey</i>	737
POPULATION ECOLOGY OF THE LONG-BILLED CURLEW (<i>NUMENIUS AMERICANUS</i>) IN WESTERN IDAHO. <i>Roland L. Redmond and Donald A. Jenni</i>	755
ROLE OF SIBLING AGGRESSION IN FOOD DISTRIBUTION TO NESTLING CATTLE EGRETS (<i>BUBULCUS IBIS</i>). <i>Bonnie J. Ploger and Douglas W. Mock</i>	768
FORAGING BEHAVIOR OF GENTOO AND CHINSTRAP PENGUINS AS DETERMINED BY NEW RADIOTELEMETRY TECHNIQUES. <i>Wayne Z. Trivelpiece, John L. Bengtson, Susan G. Trivelpiece, and Nicholas J. Volkman</i>	777
FEMALE SITE FIDELITY AND POLYGYNY IN THE BLACKPOLL WARBLER (<i>DENDROICA STRIATA</i>). <i>Bonita C. Eliason</i>	782
DENSITY TRENDS AND RANGE BOUNDARY CONSTRAINTS OF FOREST BIRDS ALONG A LATITUDINAL GRADIENT. <i>John T. Emlen, Michael J. DeJong, Michael John Jaeger, Timothy C. Moermond, Kurt A. Rusterholz, and Robin P. White</i>	791
REIDENTIFICATION OF "PHALACROCORAX" SUBVOLANS BRODKORB AS THE EARLIEST RECORD OF ANHINGIDAE. <i>Jonathan J. Becker</i>	804
IN MEMORIAM: LESTER L. SNYDER. <i>R. Charles Long and Jon C. Barlow</i>	809
IN MEMORIAM: FINN SALOMONSEN. <i>F. G. Cooch</i>	811
IN MEMORIAM: FRANK RICHARDSON. <i>Tony Angell</i>	812
SHORT COMMUNICATIONS	
Dynamics of Nest Parasitism in Wood Ducks. <i>Brad Semel and Paul W. Sherman</i>	813
Songbird Carcasses Disappear Rapidly from Agricultural Fields. <i>Richard Balcomb</i>	817
Changes in Plasma Prolactin Associated with Laying and Hatch in the Spotted Sandpiper. <i>Lewis W. Oring, Albert J. Fivizzani, and Mohamed E. El Halawani</i>	820
Composition and Quantity of Feather Sheaths Produced by White-crowned Sparrows During the Postnuptial Molt. <i>Mary E. Murphy and James R. King</i>	822
Estimating Nest Detection Probabilities for White-winged Dove Nest Transects in Tamaulipas, Mexico. <i>James D. Nichols, Roy E. Tomlinson, and Gary Waggoner</i>	825
Diving Depths of Atlantic Puffins and Common Murres. <i>Alan E. Burger and Mark Simpson</i>	828
COMMENTARIES	
The Possible Impact of Observer Bias on Some Avian Research. <i>David F. Balph and H. Charles Romesburg</i>	831
Mass or Weight: What is Measured and What Should Be Reported? <i>John W. Chardine</i>	832
Why Hummingbirds Hover: A Commentary. <i>F. Reed Hainsworth</i>	832
Response to F. R. Hainsworth. <i>Richard S. Miller</i>	834
The Adaptive Significance of Anting. <i>Paul R. Ehrlich, David S. Dobkin, and Darryl Wheye</i>	835
BOOK REVIEWS. <i>Edited by M. Ross Lein</i>	836
REPORT OF THE AMERICAN ORNITHOLOGISTS' UNION COMMITTEE FOR THE CONSERVATION OF THE RED-COCKADED WOODPECKER. <i>J. David Ligon, Peter B. Stacey, Richard N. Conner, Carl E. Bock, and Curtis S. Adkisson</i>	848
100 YEARS AGO IN THE AUK	693
NOTES AND NEWS	681, 700, 709, 736, 808, 830
ERRATUM	835
INDEX TO VOLUME 103. <i>Compiled by Michelle Palmer</i>	856